

CLAIMS

1. (currently amended) A method for producing depositing an iron oxide coating on a glass article by atmospheric pressure chemical vapor deposition, comprising:

providing a heated glass substrate having a surface on which the coating is to be deposited;

directing ferrocene and an oxidant toward and along the surface to be coated to form a gaseous precursor mixture; and

reacting the precursor mixture at or near the surface of the glass substrate to form an iron oxide coating, wherein

the iron oxide coating formed thereby is primarily in the form of Fe₂O₃.

2. (original) The method according to claim 1 further comprising providing an inert carrier gas with the ferrocene and oxidant.

3. (original) The method according to claim 1 wherein the oxidant is oxygen gas.

4. (original) The method according to claim 1 further comprising cooling the coated glass article to ambient temperature.

5. (original) The method according to claim 2, wherein the inert carrier gas comprises at least one of helium and nitrogen.

6. (original) The method according to claim 1 wherein the iron oxide layer is deposited at a rate of greater than or equal to about 200 Å/sec.

7. (original) The method according to claim 2, wherein the gas phase ferrocene concentration is in the range of about 0.1 to about 5.0%.

8. (original) The method according to claim 2, wherein the gas phase ferrocene concentration is in the range of about 0.3 to about 3.0%.

9. (original) The method according to claim 2, wherein the gas phase ferrocene concentration is in the range of about 0.6 to about 2.5%.

10. (original) The method according to claim 2, wherein the gas phase oxidant concentration is about 1 to about 50%.

11. (original) The method according to claim 2, wherein the gas phase oxidant concentration is about 3 to about 40%.

12. (original) The method according to claim 2, wherein the gas phase oxidant concentration is about 5 to about 35%.

13. (original) The method according to claim 1, wherein the deposited iron oxide coating as a thickness between about 300 and about 700 Å

14. (original) The method according to claim 2, further comprising dissolving the ferrocene in a solvent.

15. (original) The method according to claim 1, wherein the method occurs in an on-line float glass production process.

16. (currently amended) A method of utilizing ferrocene in a an atmospheric pressure chemical vapor deposition process to form an iron oxide layer on a substrate, wherein the ferrocene and an oxidant are mixed and delivered to the substrate for use in the chemical vapor deposition process, and wherein the iron oxide layer is primarily Fe₂O₃.

17. (original) The method according to claim 16 comprising depositing an iron oxide layer on the substrate at a rate of greater than or equal to about 200 Å/sec.
18. (original) The method according to claim 16, wherein the iron oxide layer has a thickness between about 300 and about 700 Å.
19. (original) The method according to claim 16, wherein the deposited iron oxide layer has a thickness between about 400 and about 650 Å.
20. (original) The method according to claim 16, wherein the deposited iron oxide layer has a thickness between about 500 and about 625 Å.

21-26. (canceled)

27. (new) The method according to claim 16, wherein the article formed thereby is an architectural glazing.
28. (new) The method according to claim 1, wherein the coated article formed thereby is an architectural glazing.